



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/559,013	04/26/2000	Toshiro Ono	L0461/7086(JRV)	1882

7590 11/03/2005

John R Van Amsterdam  
c/o Wolf Greenfield and Sacks P C  
Federal Reserve Plaza  
600 Atlantic Avenue  
Boston, MA 02210-2211

EXAMINER

CANELLA, KAREN A

ART UNIT	PAPER NUMBER
----------	--------------

1643

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/559,013

Applicant(s)

ONO ET AL.

Examiner

Karen A. Canella

Art Unit

1643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 54, 56, 60, 62, 64, 66, 76, 133, 134 and 137 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 76 and 137 is/are allowed.
- 6) ☐ Claim(s) 54, 56, 60, 62, 64, 66, 133 and 134 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

Claims 54, 56, 76, 133 and 137 have been amended. Claims 54, 56, 60, 62, 64, 66, 76, 133, 134 and 137 are pending and under consideration.

Text of Title 35, U.S. Code not found in this action can be found in a prior action.

The rejection of claim 54 under 35 U.S. C. 102(e) as being anticipated by Jacobs et al (U.S. 2003/0044935) is maintained. Claim 54 has been amended to include "complements of (a)". SEQ ID NO:92 of Jacobs et al is a 29-mer oligonucleotide which is a complement of SEQ ID NO:23 from nucleotide 417 to nucleotide 446.

Claim 54 is rejected under 102(b) as being anticipated by New England Biolabs Catalog (1993-1994, page 91). Claim 51 is drawn in part to complements without the limitation of full-length complement. When given the broadest reasonable interpretation, the claim encompasses complements of shorter length than the full-length sequence. New England Biolabs Catalog discloses random primers which are the same as the claimed complements.

The rejection of claims 54, 56, 60, 64, 66, 133 and 134 under 35 U.S.C. 102(a) as being anticipated by Bandman et al (WO 00/9709) is maintained for the following reasons of record.

Bandman et al disclose an expression vector comprising at least a fragment of the polynucleotide encoding the PPRG-10 polypeptide and a host cell comprising said vector (page 5, lines 13-16). Bandman et al disclose mammalian cells as a specific embodiment of host cells which would fulfill the limitation of claim 66 because the mammalian host cell would comprise an endogenous nucleic acid encoding an MHC I molecule. Bandman et al teach a preferred embodiment of a fragment of the polynucleotide encoding the PPRG-10 polypeptide as the polynucleotide sequence of 1190-1234 of SEQ ID NO:30 which encodes an immunogenic peptide (page 8, lines 2-5, page 15, lines 31-32 and page 16, lines 8-9) and which also fulfills the specific embodiment of claim 134 because a said immunogenic fragment would bind to an MHC molecule and/or an antibody. Because Bandman et al disclose the polynucleotide

Art Unit: 1643

sequence of 1190-1234 as a preferred fragment, it is part of the expression vector comprising at least a fragment of the polynucleotide encoding PPRG-10 and host cells thereof.

Claims 54, 56, 60, 62, 66, 66, 133 and 134 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandman et al (WO 00/09709) in view of Wang et al (WO 97/29195). Claim 62 is drawn to an isolated expression vector comprising the nucleic acid of claim 54 and a nucleic acid encoding a MHC molecule.

Bandman et al teach an expression vector comprising nucleotides 1190-1234 of SEQ ID NO:30 which encodes an immunogenic peptide (page 8, lines 2-5, page 15, lines 31-32 and page 16, lines 8-9). Bandman et al do not specifically teach that the expression vector would comprise a nucleic acid encoding an MHC molecule.

Wang et al teach expression vector comprising nucleic acids encoding portions of antigenic peptides and nucleic acids encoding an MHC molecule (claim 54).

It would have been prima facie obvious at the time the claimed invention was made to make an expression vector comprising nucleotides 1190-1234 of SEQ ID NO:30 which encodes an immunogenic peptide and also comprising a nucleic acid encoding an MHC molecule. One of skill in the art would have been motivated to do so by the teachings of Bandman et al which identify the nucleic acid fragment as encoding an antigenic peptide by Bandman et al and also by the teachings of Wang et al on the recombinant expression of both the antigenic peptide and an MHC molecule. One of skill in the art would understand that immunorecognition is based on presentation within an MHC molecule, and therefore providing a cell which expresses an adequate level of both MHC molecules and the antigenic peptide encoded from nucleotides 1190-1234 of SEQ ID NO:30 would activate T cells having a complementary receptor.

All other rejections and objections as set forth or maintained in the previous Office action are withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen A. Canella whose telephone number is (571)272-0828. The examiner can normally be reached on 11 am to 10 pm, except Wed, Fri.

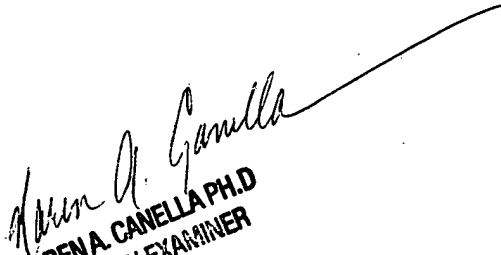
Art Unit: 1643

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms can be reached on (571)272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karen A. Canella, Ph.D.

10/31/2005

  
KARENA CANELLA PH.D  
PRIMARY EXAMINER